



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,028	03/02/2004	Kenneth B. Kidder	H0005197	1376

7590 03/21/2007
Honeywell International, Inc.
Patent Services Group
101 Columbia Road
Morristown, NJ 07962

EXAMINER

HO, HUY C

ART UNIT	PAPER NUMBER
----------	--------------

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/792,028

Applicant(s)

KIDDER ET AL.

Examiner

Huy C. Ho

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-23, 26, 29-33** are rejected under 35 U.S.C. 102(e) as being anticipated by **Wang (2004/0201448)**.

Consider claim 1, Wang teaches a method for wireless association between a controller and a wireless node, the method comprising:

transmitting association request data from the wireless node, the association request data including unique identification (ID) data for the wireless node (see the abstract, figure 1, pars [14]-[15], [22], [31]);

receiving the association request data at the controller and, in response, sending association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as the intended recipient of the association ID data, the controller storing the

association ID data for use in sending wireless signals to the wireless node (**the abstract, pars [14]-[15], [34]**); and

receiving and storing the association ID data at the wireless node as a function of the unique ID, thereby associating the wireless node with the controller (**pars [14]-[15]**).

Consider claim 17, Wang teaches a method for wirelessly communicating between a controller and a wireless node, the method comprising:

transmitting association request data from the wireless node, the association request data including a unique device ID for the wireless node (**see the abstract, figure 1, pars [14]-[15], [22], [31]**);

receiving the association request data at the controller and, in response, sending an association ID assigned to the wireless node by the controller using the unique device ID with the association ID to identify the wireless node as the intended recipient of the association ID, the controller storing the association ID for use in sending wireless messages to the wireless node (**the abstract, pars [14]-[15]**);

receiving and storing the association ID data at the wireless node as a function of the unique ID (**pars [14]-[15]**);

using the stored association ID data at the wireless node to identify incoming wireless messages from the controller as messages intended for the wireless node (**pars [14]-[15]**); and

using the association ID data at the controller to identify incoming wireless messages sent from the wireless node (**pars [14]-[15]**).

Consider claim 23, Wang teaches a method for controlling a plurality of wireless thermostats in communication range with at least one gateway, each wireless thermostat coupled to control HVAC type equipment (**see the abstract, par [21]-[22]**), the method comprising:

transmitting association request data from a wireless thermostat, the association request data including unique identification (ID) data for the wireless thermostat (see the abstract, figure 1, pars [14]-[15], [21], [22], [31]);

receiving the association request data at the gateway and, in response, sending gateway-owned association ID data assigned to the wireless thermostat by the gateway using the unique ID to identify the wireless thermostat as the intended recipient of the association ID, the gateway storing the association ID data for use in sending wireless messages to the wireless thermostat and to identify incoming wireless messages sent from the wireless thermostat (pars [14]-[15], [22], [34]);

receiving and storing the gateway-owned association ID data at the wireless thermostat as a function of the unique ID to identify incoming wireless messages from the gateway as messages intended for the wireless thermostat (pars [14]-[15], [22]);

communicating control messages from the gateway to the wireless thermostat using the association ID data to identify the wireless thermostat as the intended recipient of the control messages (pars [14]-[15], [21]-[23]); and

at the wireless thermostat, accepting the control messages as function of the association ID data and, in response to the control messages, controlling HVAC equipment coupled to the wireless thermostat (pars [14]-[15], [21]-[23]).

Consider claim 29, Wang teaches a system for wireless association between a controller and a wireless node, the system comprising:

means for transmitting association request data from the wireless node, the association request data including unique identification (ID) data for the wireless node (see the abstract, figure 1, pars [14]-[15], [22], [31]);

means for receiving the association request data at the controller and, in response, for sending association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as the intended recipient of the association ID data, the controller storing the association ID data for use in sending wireless signals to the wireless node (pars [14]-[15], [34]); and

means for receiving and storing the association ID data at the wireless node as a function of the unique ID, thereby associating the wireless node with the controller (pars [14]-[15]).

Consider claim 30, Wang teaches a system for wireless communication, the system comprising:

a controller (figure 1, pars [20]-[24]);

a wireless node (figure 1, pars [20]-[24]);

the wireless node being configured and arranged for transmitting association request data including unique identification (ID) data for the wireless node (see the abstract, figure 1, pars [14]-[15], [22], [31]);

the controller being configured and arranged for receiving the association request data and, in response, for sending association ID data assigned to the wireless node by the controller using the unique ID with the association ID data to identify the wireless node as the intended recipient of the association ID data, the controller storing the association ID data for use in sending wireless signals to the wireless node (pars [14]-[15], [34]); and

the wireless node being configured and arranged for receiving and storing the association ID data as a function of the unique ID, thereby associating the wireless node with the controller (pars [14]-[15]).

Consider claim 2, The method of claim 1, Wang teaches further comprising:

using the stored association ID data at the wireless node to identify incoming wireless signals from the controller as signals intended for the wireless node (pars [14]-15)).

Consider claim 3, The method of claim 1, Wang teaches further comprising:

using the association ID data at the controller to identify incoming wireless signals sent from the wireless node as coming from the wireless node (pars [14]-15)).

Consider claim 4, The method of claim 1, Wang teaches wherein assigning association ID data includes assigning network ID data corresponding to a network of wireless nodes served by the controller (figure 1, pars [14]-15), [29] and [31]).

Consider claim 5, The method of claim 4, Wang teaches further comprising selecting the network ID data by parsing network ID data in use within range of the controller and selecting network ID data that is not in use within range ([23]-[24], [31], [34]).

Consider claim 6, The method of claim 1, Wang teaches wherein assigning association ID data includes assigning slave ID data that is exclusively assigned to the wireless node among wireless nodes within a network of wireless nodes (pars [14]-15), [23], [31], [34]).

Consider claim 7, The method of claim 1, Wang teaches wherein assigning association ID data includes assigning master ID data that is exclusive to the controller relative to controllers within communication range of the wireless node (pars [14]-15), [23], [31], [34]).

Consider claim 8, The method of claim 7, Wang teaches after assigning association ID data, further comprising replacing the controller with a new controller, storing the association ID data at the new controller and using the master ID data to identify the new controller (see pars [31], [33], [35]-[36]).

Consider claim 9, The method of **claim 1**, Wang teaches prior to transmitting association request data, further comprising inputting an association request at the wireless node and wherein transmitting association request data includes transmitting the association request data in response to the association request input (**par [22]**).

Consider claim 10, The method of **claim 9**, Wang teaches further comprising entering an association mode at the wireless node for a selected time period and exiting the association mode after the selected time period has expired, wherein receiving and storing the association ID data at the wireless node includes receiving and storing the association ID data if the wireless node is in the association mode (**pars [37]-[38]**).

Consider claim 11, The method of **claim 9**, Wang teaches further comprising inputting an association request input at the controller and wherein sending association ID data includes sending the association ID data in response to both the association request input at the controller and the received association request data (**par [44]**).

Consider claim 12, The method of **claim 11**, Wang teaches further comprising entering an association mode at the controller for a selected time period and exiting the association mode after the selected time period has expired, wherein receiving the association request data at the controller and, in response, sending association ID data includes sending association ID data if the controller is in the association mode (**par [44]**).

Consider claim 13, The method of **claim 1**, Wang teaches after receiving and storing the association ID data at the wireless node, replacing the wireless node with a new wireless node by storing the association ID data at the new wireless node (**[14]-[16]**).

Consider claim 14, The method of **claim 1**, Wang teaches further comprising sending messages to the wireless node using the association ID data to identify the wireless node as the intended recipient of the messages and using the messages at the wireless node to control equipment coupled thereto ([14]-15)).

Consider claim 15, The method of **claim 1**, Wang teaches prior to sending association ID data, further comprising:

sending a conflict checking message including a network ID to be used with the association ID ([35], [38], [41]-[42]);

in response to receiving a network ID conflict response of another controller to the conflict checking message, selecting a new network ID to be included with the association ID and re-sending a conflict checking message ([35], [38], [41]-[42]); and

in response to not receiving a network ID conflict response, sending the association ID data ([35], [38], [41]-[42]).

Consider claim 16, The method of **claim 1**, Wang teaches further comprising: using the controller to monitor wireless conflict checking messages from other controllers within range of the controller; and in response to receiving a conflict checking message including a network ID that is in use by the controller, sending a conflict response ([35], [38], [41]-[42]).

Consider claim 18, The method of **claim 17**, Wang teaches wherein storing association ID data at the controller includes storing range limits for association IDs of wireless nodes assigned to the controller, and wherein identifying messages sent from the wireless node to the controller with the association ID data includes determining whether the association ID data is within the stored range limits (par [23]-[24]).

Consider claim 19, The method of **claim 18**, Wang teaches further comprising: in response to the association ID data being within a predetermined range, processing the association ID data at the controller (**par [23]-[24]**); and

in response to the association ID data being outside of the predetermined range, ignoring the association ID data at the controller (**par [23]-[24]**).

Consider claim 20, The method of **claim 17**, Wang teaches wherein assigning association ID data includes assigning network ID data corresponding to a network of wireless nodes served by the controller and wherein using the association ID data at the controller to identify incoming wireless messages sent from the wireless node includes determining, at the controller, that the network ID data corresponds to a network served by the controller (**pars [14]-[15], [22], [31]**).

Consider claim 21, The method of **claim 17**, Wang teaches wherein assigning association ID data includes assigning master ID data that is exclusive to the controller relative to controllers within communication range of the wireless node and wherein using the association ID data at the controller to identify incoming wireless messages sent from the wireless node includes determining, at the controller, that the master ID data corresponds to the controller's master ID data (**pars [14]-15], [23]-[24], [31], [34]**).

Consider claim 22, The method of **claim 17**, Wang teaches wherein using the stored association ID data at the wireless node to identify incoming wireless messages includes identifying the incoming wireless messages from a plurality of incoming wireless messages traversing shared media that is susceptible to the transmission of multiple wireless messages (**[14]-[15]**).

Consider claim 26, The method of **claim 23**, Wang teaches wherein communicating control messages from the gateway includes communicating control messages in response to control messages received at the gateway from a local utility company (pars [6]-[7], [14]-[15], [21]).

Consider claim 31, The system of **claim 30**, Wang teaches wherein the wireless node is configured and arranged to use the stored association ID data at the wireless node to identify incoming wireless signals from the controller as signals intended for the wireless node (pars [14]-[15], [22], [31]).

Consider claim 32, The system of **claim 30**, Wang teaches wherein the controller is configured and arranged to use the association ID to identify incoming wireless signals sent from the wireless node as coming from the wireless node (pars [14]-[15], [34]).

Consider claim 33, The system of **claim 30**, Wang teaches wherein the controller is configured and arranged to: prior to sending association ID data, send a conflict checking message including a network ID to be used with the association ID ([35], [38], [41]-[42]);

in response to receiving a network ID conflict response of another controller to the conflict checking message, select a new network ID to be included with the association ID and re-send a conflict checking message ([35], [38], [41]-[42]); and

in response to not receiving a network ID conflict response, send the association ID data ([35], [38], [41]-[42]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

Art Unit: 2617

the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang (2004/0201448)** and further in view of **Simmons et al. (6,349,883)**.

Consider claim 24, The method of claim 23, Wang fail to teaches feature of further comprising using the association ID to label compliance data sent from the wireless thermostat to identify the source of the compliance data, the compliance data being indicative of user compliance with the utility control messages. In an analogous art, Simmons teaches using the association ID to label compliance data sent from the wireless thermostat to identify the source of the compliance data, the compliance data being indicative of user compliance with the utility control messages (see col 2 lines 5-67, col 3 lines 1-5, col 6

lines 32-50, col 7 lines 27-45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify and incorporate Simmons teachings into Wang invention to have the feature of comprising using the association ID to label compliance data sent from the wireless thermostat to identify the source of the compliance data, the compliance data being indicative of user compliance with the utility control messages.

Consider claim 25, The method of **claim 24**, Wang, as modified by Simmons, teaches further comprising sending the compliance data from the gateway to a local utility provider (col 2 lines 5-67, col 3 lines 1-5, col 6 lines 32-50, col 7 lines 27-45).

7. **Claims 27 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang (2004/0201448)** and further in view of **Badger et al. (5,886,647)**.

Consider claim 27, The method of **claim 23**, Wang fails to teaches the feature communicating control messages from the gateway includes broadcasting information from the gateway to a plurality of wireless thermostats using a network ID included with the association ID, each of the plurality of wireless thermostats being adapted to receive the broadcast information as a function of the network ID portion of the association ID, however, Wang teaches the control master node communicates with slave nodes and can route messages between them (**par [27]**). In an analogous art, **Badger** teaches communicating control messages from the gateway includes broadcasting information from the gateway to a plurality of wireless thermostats using a network ID included with the association ID, each of the plurality of wireless thermostats being adapted to receive the broadcast information as a function of the network ID portion of the association ID (see the abstract, col 3 lines 30-52, col 4 lines 3-18, col 6 lines 37-57, col 7 lines 18-45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify and incorporate **Badger** teachings into Wang invention to have the feature of communicating control messages from the gateway includes broadcasting information from the

gateway to a plurality of wireless thermostats using a network ID included with the association ID, each of the plurality of wireless thermostats being adapted to receive the broadcast information as a function of the network ID portion of the association ID.


Consider claim 28, The method of claim 27, Wang, as modified by Badger, teaches each wireless thermostat is adapted to respond to the broadcast information as a function of user inputs received at the wireless thermostat and to report a condition of the response to the gateway using the association ID to identify the wireless thermostat from which the reported condition was sent (see the abstract, col 3 lines 30-52, col 4 lines 3-18, col 6 lines 37-57, col 7 lines 18-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy C. Ho whose telephone number is (571) 270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


NICK CORSARO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2814